

LONG ISLAND BOTANICAL SOCIETY NEWSLETTER

September - October 1994 Vol. 4, No. 5

In This Issue

Mary Laura Lamont has written an article on the Maritime Dwarf Beech Forests found on eastern Long Island. This is a recently recognized and very rare plant community.

John Turner has contributed a Conservation Column on the proposal to create Golf Courses on some of the more interesting Suffolk County Parks. He urges everyone to contact Suffolk County officials and voice their opinion.

Lance Biechele has written about the mysteries of *Russula* taxonomy.

In the last issue of the LIBS newsletter a wrong telephone number was inadvertently listed to contact **Dave Kunstler** for information on his field trip to Pelham Bay Park. We apologize for any inconvenience this may have caused members and Dave. The field trip was cancelled, but Dave has agreed to reschedule another trip in the future.

PROGRAMS

13 September 1994 - 7:30 pm, **Dennis Puleston**, "Flora and Fauna of the Arctic", Uplands Farm Nature Center, Cold Spring Harbor

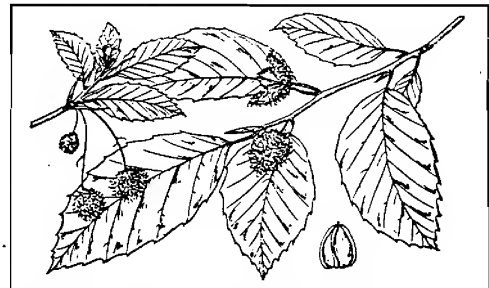
11 October 1994 - 7:30 pm, **Eric Lamont**, "Roy Latham of Orient, N.Y.'s premier naturalist of the 20th century." ~~Uplands Farm Nature Center, Cold Spring Harbor~~

* Refreshments are available starting at 7:30 pm; the meeting begins at 8 pm. For directions to Uplands Farm call 516-367-3225.

The Maritime Dwarf Beech Forest on Long Island, New York

Anyone who has taken a ramble in the woodlands of Long Island knows that the American Beech (*Fagus grandifolia*) is a fairly common tree. It grows tall and straight and is a beautiful tree. The tree has smooth gray bark that looks like the skin of an elephant. Unfortunately, people also carve their names into the bark of this tree. Occasionally when I walk in the woods I like to imagine that no one had ever been here at this same spot before me (excepting a native American). That thought fades quickly when I lean on an immense beech tree and read, "W.K. and M.S. 1947!"

The presence of American Beech usually indicates that the soil is fairly rich. It is a climax species on



Fagus grandifolia --AMERICAN BEECH

Long Island and in other northeastern deciduous forests. A climax species is one that does not make conditions unfavorable for its seedlings to propagate. In other words, once Beech trees come into an area they are to stay and indicate that the forest is a mature one, not an early growing "pioneer" type forest. A pioneer forest eventually gives way to a climax forest which remains until natural changes occur or man destroys it.

At several locations on the Riverhead bluffs overlooking Long Island Sound occurs an unusual and rare forest composed of dwarf beech trees. The forest is unique because of the unusual growth form of the trees, the soil they grow in, and the geological formations they grow on. The trees are short and stunted in size, they spread out sideways instead of up, and they grow in sandy soil instead of rich sediments. The forests occur

Maritime Dwarf Beech Forest Cont'd

at the top of the bluffs and along the bluff face where the trees are constantly exposed to the effects of salt spray, sand blow-up, cold wind, and winter ice. It is an unlikely habitat for the stately American Beech.

At some locations the bluffs are divided into finger-like projections or ridges that extend out from the bluffs toward the sound; between the ridges are extremely deep and steeply sloped ravines. The ravines rise up abruptly to the next ridge. The tops of many of the ridges are extremely narrow and almost come to a point, or pyramid. Along the narrow ridgetops grow many of the dwarf beech trees. They are the dominant climax tree because they have become adapted to the harsh environment. At one location the dwarf beech forest continues halfway down the face of the bluff to the rocky beach below. The trees have stabilized the ridges and in certain areas the bluff face itself. The forest appears to be a stable climax community that may be hundreds of years old. The steep ravines between the ridges contain tremendous boulders left by retreating glaciers; some ravines support some of the largest and most lush fern stands this writer has ever seen on Long Island. The ravines are so steep and numerous you can imagine that you are in mountains, not on the seacoast.

Very little is known about the maritime dwarf beech forest; I am aware of only one scientific paper that describes it. In 1970, Ralph Good (Rutgers University) and Norma Good (Biological Abstracts, Philadelphia) published the results of a vegetation study on the development of a "pygmy" beech forest near Friars Head Farm, Riverhead. This paper was published in volume 97 of the Bulletin of the Torrey Botanical Club. More recently, in 1994 the New York State Department of State recognized the maritime dwarf beech forest as "a globally rare community" with less than 10 occurrences on earth. It is hoped that the dwarf beech forest be recognized as an "Outstanding Natural Coastal Area" in the State's GEIS on the Long Island Sound Coastal Management Program. The New York Natural Heritage Program also plans to list the maritime beech forest as a rare ecological community in the second edition of "Ecological Communities of New York State" (Reschke, personal communication).

Several environmental groups, including the Long Island Botanical Society, have proposed that this community be preserved immediately since it is under development pressure. Currently there is no management plan for this unique forest community, and it is at risk. Some of the forest has already been cut over, and other nearby cleared areas may have previously supported the pygmy forest. The full extent of the remaining forest is not even known at this time.

The forest certainly occurs beyond the borders of Friars Head; my husband and I have recently located several isolated occurrences of the forest, extending from Wildwood State Park (near the border of Brookhaven Township) to just west of the Northville oil tanks in Riverhead Township.

The maritime dwarf beech forest is one of the last remaining unspoiled tracts of Long Island coastline left. It is a unique pristine community that is globally rare and here it is on the Riverhead bluffs. Isn't it time to identify the boundaries of the forest before it is destroyed by development? Who knows how many years it has existed, but let us make sure it remains for hundreds more.--Mary Laura Lamont

Suffolk County Golf Proposal Threatens Wooded Parkland

With the support of the Suffolk County Parks Department, the Suffolk County Planning Department has recently released a report recommending the conversion of several undeveloped county parks to golf course use. Parks targeted for conversion include the southern section of West Hills County Park, all of Bohemia County Park, and the western section of the Terrell's River County Park (also known as the Haven's Estate). An undeveloped section of the Yaphank County Center is proposed for two 18 hole courses and Berkeley Jackson County Park in Elwood is under consideration for a 9 hole course or an 18 hole "executive" course.

This proposal raises a host of significant concerns and questions such as the environmental suitability of the selected sites, the extent and adequacy of the required environmental review, and whether or not these uses are legally permitted at several of the sites chosen.

For example, the portion of West Hills County Park proposed for conversion is an inappropriate site for a number of reasons. It is a heavily wooded climax forest with an oak overstory and a mountain laurel understory. There are several decades-old white pine plantings in which pink lady slippers are a common constituent. On an exposed ridge that faces toward Northern State Parkway is a small population of both blackjack and scrub oaks.

Furthermore, being situated on the Ronkonkoma Moraine, the topography of the site, could best be described as "tortuous", particularly along the east and north sides. Slopes in these areas are nearly 35%.

Crossing the property is the popular Walt Whitman

trail which leads to the Walt Whitman birthplace; this trail, used by hundreds of hikers annually, is a spur of the Nassau-Suffolk trail, a nationally designated recreational hiking trail. Minimally, this trail will be compromised by the golf course construction and may be eliminated entirely.

As if these impacts aren't enough, the proposed golf course at West Hills is located within the West Hills Special Groundwater Protection Area (SGPA), one of only nine such areas designated areas on Long Island which are critical to the clean recharge of water to the underlying groundwater aquifers (as you may know, the Pine Barrens is the largest SGPA designated on Long Island). Golf courses, because of their heavy reliance on chemicals such as fertilizer, pesticides and fungicides which can contaminate groundwater, are deemed to be incompatible uses in SGPA's.

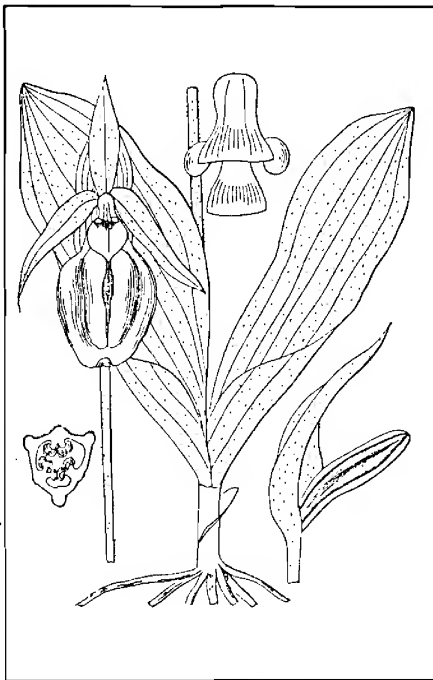
The other proposed parkland sites have similar constraints. Several of these sites may have legal constraints as well.

This proposal is **REAL!** It is vital that Suffolk County members of the Long Island Botanical Society write or call their county legislator and **Bob Gaffney**, Suffolk County Executive expressing your opposition to the proposal and to request the preparation of a Generic Environmental Impact Statement (GEIS) on the proposal so that all relevant issues and alternatives can be assessed and compared.

These alternatives should include county acquisition of privately-owned existing golf courses (particularly those such as Swan Lake in Manorville and Hampton Hills in Riverside which are surrounded by public parkland), contracts with private golf clubs to promote public use at their courses, and golf course construction on county-owned land not dedicated for parkland use.

Please write or call your elected officials today!--

John Turner



Cypripedium acaule---Pink Lady Slipper

Mushroom Follies

There are many wonderful mycologists that are always willing to help amateurs with their mushroom determinations. The following anecdote reflects the humor of one such specialist and emphasizes the importance of always getting good specimens.

It was during our mushroom walk in Sag Harbor that we found these two collections of green-colored *Russulas* with distinctively different textured caps. Being astute to the fact that almost all *Russulas* with greenish-caps are edible, we felt confident that these species would be described in our field guides to the mushrooms. Besides, can there really be that many species of green *Russulas*?

Our adventure begins with Kibby & Fatto's *Keys to the species of Russula in NE North America*, April 1990. We look for the code "B" for green and find that we could have "Group 26," *R. variata* or *R. viridioculata*, or "Group 27," which contains *R. cyanoxantha*, *R. heterophylla*, *R. redolens*, and *R. virescens*. There is also "Group 28," with *R. aeruginea*, *R. crustosa*, *R. grisea*, *R. modesta* and *R. subgraminicolor*. And didn't David Arora, in *Mushrooms Demystified*, describe *R. parazurea*?

What about a spore print? We carefully cut-off the stem and placed the cap on a white sheet of paper covered with a bell-glass to sit overnight. Will the spores be white, cream or yellowish? Unfortunately, by the next morning, the remains of our specimens were riddled with insect larvae and all that we have left are the two spore prints to send off for identification.

Within a week, **Dr. Robert L. Shaffer**, Curator of Fungi at the University of Michigan Herbarium responded with his determinations.

"*Russulas* are difficult enough to identify when one has complete data. Naming them from spores is complete folly.

The spores of your specimen no. 1 agree microscopically with **both!** *R. virescens* and *R. crustosa*. As you say, the darker deposit indicates the latter species, but *virescens* and *crustosa* intergrade somewhat in spore color, and in this case I would let the pileus color settle the matter in favor of *virescens*... The two species are very close, and if one wants to put a species name on intermediate forms, arbitrariness is unavoidable.

The name *R. aeruginosa* (sic) has been variously interpreted, but seemingly usually applied to what most people today would call *R. virescens*. Your specimen no. 2 perhaps belongs in *Russula*'s

Mushroom Follies Cont'd

subsection *Griseinae*, of which *R. aeruginea* and some other green-capped species are members. This is the most I would want to say about it."

Amazing! All of this information extracted from just two spore prints! So there was never any final identification of these specimens. We learned, however, that it takes more than just the cap color or texture to identify mushrooms. The student should also recognize that even the best field guides only illustrate the more common species.

Now, I understand that this afternoon you found some red-capped *Russulas* that need to be identified.--**Lance Biechele**, Princess Anne, Maryland.

LIBS Hosts Botanists from the Philadelphia Botanical Club

On Saturday, August 6th, eight fanatic botanists from one of the country's oldest botanical societies, the Philadelphia Botanical Club, botanized the east end of Long Island. **Christine Bird** traveled all the way from Atlanta, Georgia, and **Chuck Wilson** traveled from Chattanooga, Tennessee. Other botanists were from the Washington D.C. area, and from throughout Pennsylvania. They got an introduction to New York City traffic during Friday night's rush hour which coincided with a severe thunderstorm. Then on Saturday morning the group literally inched along Montauk Highway along with thousands of tourists visiting the Hamptons for the weekend. But when it was all over the botanists emphatically stated that the trip was well worth the effort and they all would do it again.

The focus of the field trip was to get first-hand observation of the newly described pale-crested orchid (*Platanthera pallida*), which currently stands as one of New York's two endemic plant species. **Eric Lamont** guided the group to a population of the rare orchid located near Napeague on the South Fork. The plants were in full flower upon arrival. Many of the botanists were orchid enthusiasts and they were impressed with the apparent distinctness of the orchid. The similarity to *Platanthera cristata* (the crested-fringed orchid) was immediately noted, and the possibility of a hybrid origin was discussed. The lower lip of the flower was

especially noted and extensively photographed, and **Chuck Wilson** suggested that based upon the morphology of the fringe, *P. lacera* (the ragged-fringed orchid) may have been one of the parents; this suggestion is unique, usually *P. cristata* and *P. blephariglottis* (the white-fringed orchid) have been suggested as possible parents of the pale-crested orchid.

After botanizing the area for several other coastal plain specialties, the group traveled to the Sag Harbor area where a population of "pure" *P. cristata* was observed (fortunately several individuals had escaped being mowed down by the Town of East Hampton). The flowers of typical *P. cristata* are deep orange. Growing alongside the orange-flowered individuals were a few pale colored individuals which were exactly the same color as *P. pallida*; this is exactly what the group was hoping to find. Down the road was a population of white-fringed orchid, and it was concluded that the pale flowered individuals near Sag Harbor were hybrids between

P. cristata and *P. blephariglottis*; this hybrid has a scientific name, and is known as *P. x canbyi*. However, it was generally decided that there were differences in flower structure between *P. pallida* at Napeague and *P. x canbyi* near Sag Harbor.

The group then traveled to the Manorville area and observed a small population of the rare adder's-mouth orchid (*Malaxis bayardii*), and the day was concluded at a coastal plain pondshore ablaze with rose coreopsis, meadow beauty, arrowhead, golden hedge-hyssop, and a host of rare sedges.--**Eric Lamont**



Platanthera cristata--CRESTED-FRINGED ORCHID

Society News

Field Trips

Update: Orchids are still being mowed

John Heidecker reported that the population of Yellow Fringed Orchid (*Platanthera ciliaris*) growing along a roadside near Ammagansett had once again been mowed during late July by the East Hampton Highway Department. Many plants had just produced flower buds during the week before they were mowed. The Yellow Fringed Orchid is listed as "critically imperiled in New York State because of extreme rarity," by the New York Natural Heritage Program.

Jim Ash and **Eric Lamont** also observed several other rare orchid populations that had been mowed down by the Town of East Hampton including the very rare Crested-Fringed Orchid (*Platanthera cristata*). On a slightly brighter note, **Jim** and **Eric** rediscovered a population of Ragged Fringed Orchid (*Platanthera lacera*) at Three Mile Harbor; the population had been last reported by **Roy Latham** in 1927. Latham deposited a voucher specimen, collected 29 August 1927, at the New York State Museum in Albany.

Lichens of Eastern New York City

Tom Delendick recently published "Notes on the lichens of eastern New York City: Kings and Queens counties, Long Island, New York," in volume 121(2) of the Bulletin of the Torrey Botanical Club. Tom commented on 19 species of lichen which is more than double the number collected during a study in the 1960's by **Irwin Brodo**. *Caloplaca feracissima* is the most widespread species. *Cladonia* with ten taxa, is the most diverse genus in the area.

New Members

The Long Island Botanical Society is pleased to welcome the following new members. **Emerick Bronson**, Sag Harbor; **Paul Martin Brown**, Jamaica Plain, MA; **John Burnley**, Mastic; **Susan Dickson**, Sag Harbor; **Beatrice Freeman**, Little Neck; **Erich Glanz**, Southampton; **John Heidecker**, Bellport; **Marilyn Jordan**, Huntington; **Robert McGrath**, Medford; **William Mulvihill**, Glen Cove; **Sherman Paur**, Westbury; **Kumkum Prabhakar**, Baldwin; **Dava Stravinsky**, Bellport; **Melite Sweet**, New York City.

Saturday, September 10, 1994. Kings Park State Hospital, Kings Park. Meet at Main Street (Route 25A) and Indian Head Road. Coordinator: **Robert Laskowski**. This exploratory trip will take us along the Nissequogue River and through upland areas on the hospital grounds. Bring field guides and help us compile a species list. Call Bob at 516-277-0527 for information (no need to preregister). Directions: Take LI Expressway to Sagtikos Parkway North, go to Pulaski Road (East Northport Road) and go east to Main street. Go right on Main street, Indian Head Road is about 3 blocks.

Saturday, October 1, 1994. Muttontown Preserve. Meet at the nature center at 10:00 am. Leader: **Max Wheat**. Explore the woodlands and wetlands of Muttontown Preserve. This event is presented in conjunction with the "Fall in Love with Long Island" program sponsored by the Long Island Convention and Visitors' Bureau. Directions: Take LI Expressway or Northern State Parkway to Route 106. Go north to Route 25A (Northern Blvd.). Turn left go one block and make left onto Muttontown Lane. Take about three blocks to preserve entrance.

Saturday, October 15, 1994. John F. Kennedy Sanctuary, Tobay Beach. Meet in Parking lot at 10:00 am. Leader: **Skip Blanchard**. Look at wetlands for club mosses and other fall maritime flora. Call Skip at 516-421-5619 in early to mid-afternoon with any questions. Bring lunch. No go in heavy rain. Directions: Take Northern State or Southern State Parkways to Wantagh Parkway South. Go to end of Parkway (you will go over some bridges) until you get to Jones Beach. Go east on Jones Beach Parkway about 2.5-3 miles. The Sanctuary is on the left.

LIBS T-shirts?

At the spring 1994 board meeting, the subject of producing a LIBS T-shirt was discussed. It was decided that the membership would probably be interested in the project, and **Mary Laura Lamont** volunteered to coordinate an effort to get the project rolling. Therefore, if anyone has ideas on designing, producing, and promoting a LIBS T-shirt please contact May Laura at 516-722-5542. [P.S.: It was mentioned at the board meeting that the LIBS logo featuring curly grass fern need not be included in the proposed T-shirt.]

LONG ISLAND BOTANICAL SOCIETY

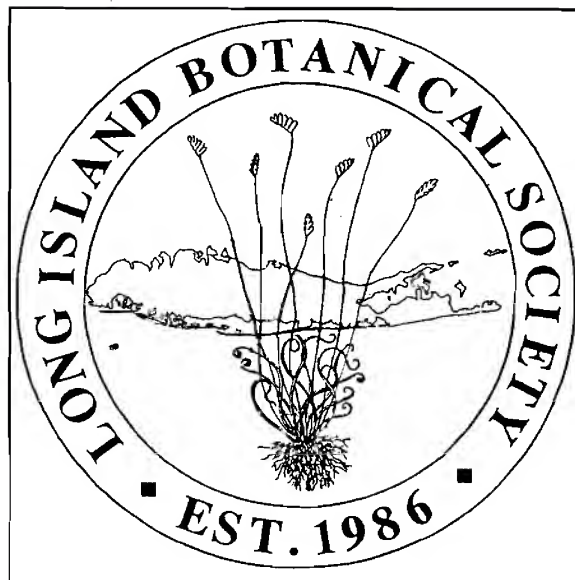
Founded: 1986; Incorporated: 1989.

The Long Island Botanical Society is dedicated to the promotion of field botany and a greater understanding of the plants that grow wild on Long Island, New York.

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	Betty Lotowycz
Program	Eric Lamont
Editor	Steven Clemants

Membership

Membership is open to all, and we welcome new members. Annual dues are \$10. For membership, make your check payable to LONG ISLAND BOTANICAL SOCIETY and mail to: Lois Lindberg, Membership Chairperson, 45 Sandy Hill Rd., Oyster Bay, NY 11771-3111



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